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09/642,009	08/21/2000	Akinori Yasutake	080542/0151	9222

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EXAMINER

HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
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1754

12

DATE MAILED: 06/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 1754

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The request filed on 3/26/03 for Continued Examination (RCE) based on parent Application No. 09/642009 is acceptable.

Claims 6, 7, 20-30 and 39-55 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6106791. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims encompass the patented treatment temperatures. The examples provide the process details (heating time, etc.) of the dependent claims. The patented carbon is hydrophobic due to the treatment.

Claims 6, 7, 20-30, 39-42 and 45-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ninomiya et al. taken with Japan '176.

Ninomiya teaches in columns 1-3, 5 and ex.1 contacting active carbon with NO_x, SO_x, water and oxygen. This differs in not teaching treated fibers, however the '176 abstract teaches treated active carbon fibers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the '176 fibers in the process of Ninomiya because doing so fibers have a higher surface area (and thus active sites) per gram than spherical particles do, making the process more efficient. Further, it would treat the NO_x in the Ninomiya stream. The flow rate is an obvious optimization of throughput or scale of reaction; In re Boesch 205 USPQ 215.

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Claims 6, 7 and 20-30, 39-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada taken with Japan '176.

Hamada teaches in column 1, 3 and 4 contacting active carbon with NO_x, SO_x, water and oxygen. This differs in not teaching treated fibers, however the '176 abstract teaches treated active carbon fibers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the '176 fibers in the process of Hamada because doing so fibers have a higher surface area (and thus active sites) per gram than spherical particles do, making the process more efficient. Further, it would treat the NO_x in the Hamada stream.

Applicant's arguments filed 3/26/03 have been fully considered but they are not persuasive. No restriction between 'treating SO_x and NO_x' versus 'treating SO_x' was made, so the restriction is proper. The references are combinable because '176 teaches a carbon material desired by the other references, and is deemed to be also hydrophobic due to how it was made. While acid treatment creates surface oxy groups which are hydrophilic, the overall character is still hydrophobic due to the low number of these groups; no difference is seen. Further experimentation on this aspect appears appropriate. Previous arguments from paper 6 apply.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.



Stuart Hendrickson
examiner Art Unit 1754